

N5 Applications of Mathematics

Speed, Distance, Time

2019 P1 Q13	<p>Joe had a business meeting in London. He travelled from home to his meeting by car.</p> <ul style="list-style-type: none"> • He arrived at his meeting at 11:45 • He travelled 220 miles to his meeting at an average speed of 50 mph • During his journey he stopped for half an hour for breakfast <p>Calculate the time he left home.</p>	4
Ans	06:51	
2018 P2 Q4(b)	<p>Nicola spent 21 minutes exercising on a treadmill. Her average speed was 6.6 km/h.</p> <p>(b) Calculate the distance she ran on the treadmill.</p>	2
Ans	2.31 km	
2017 P2 Q5	<p>The distance from Villefranche to Livorno is. It took 7 hours and 30 minutes to sail from Villefranche to Livorno.</p> <p>(b) Calculate the average speed of the ship's journey. Give your answer in knots. 1 kilometre per hour = 0.54 knots Round your answer to 2 significant figures.</p>	3
Ans	17 (knots)	
2016 P2 Q4(b)	<p>From part (a) The distance from Mallaig to Inverie is 9.6 km</p> <p>(b) The average speed of the ferry from Mallaig to Inverie is 24 ± 3 kilometres per hour depending on tide and weather. What is the shortest time that the complete ferry journey might take? Give your answer to the nearest minute.</p>	3
Ans	23 (minutes)	

2014 P2 Q6	<p>The table shows the qualifying times at the Malaysian 2013 Grand Prix. The qualifying times are for 1 lap of the track. The track is 5.543 kilometres long. There are 56 laps in this Grand Prix.</p> <table border="1" data-bbox="201 443 1174 869"> <thead> <tr> <th></th> <th>Driver</th> <th>Team</th> <th>Qualifying Time (min: sec)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sebastian Vettel</td> <td>Red Bull</td> <td>01:49.7</td> </tr> <tr> <td>2</td> <td>Felipe Massa</td> <td>Ferrari</td> <td>01:50.6</td> </tr> <tr> <td>3</td> <td>Fernando Alonso</td> <td>Ferrari</td> <td>01:50.7</td> </tr> <tr> <td>4</td> <td>Lewis Hamilton</td> <td>Mercedes</td> <td>01:51.7</td> </tr> <tr> <td>5</td> <td>Mark Webber</td> <td>Red Bull</td> <td>01:52.2</td> </tr> <tr> <td>6</td> <td>Nico Rosberg</td> <td>Mercedes</td> <td>01:52.5</td> </tr> </tbody> </table> <p>(b) What was Lewis Hamilton's average speed in his qualifying lap? Round your answer to the nearest km/h.</p>		Driver	Team	Qualifying Time (min: sec)	1	Sebastian Vettel	Red Bull	01:49.7	2	Felipe Massa	Ferrari	01:50.6	3	Fernando Alonso	Ferrari	01:50.7	4	Lewis Hamilton	Mercedes	01:51.7	5	Mark Webber	Red Bull	01:52.2	6	Nico Rosberg	Mercedes	01:52.5	5
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<i>Ans</i>	179 (km/hr)																													
2014 P1 Q5	<p>Reece is given a lift to school. She leaves the house at 8:30 am and arrives at school at 8:50 am. She uses an app on her phone to calculate her average speed for the journey. Her phone displays 6.8m/s. What distance did she travel? Give your answer to 2 significant figures.</p>	4																												
<i>Ans</i>	8200 metres (8.2 km)																													